

DOCUMENT RESUME

ED 465 816

TM 034 205

TITLE Delaware Student Testing Program: A Score Results Guide for Parents.

INSTITUTION Delaware State Dept. of Education, Dover. Assessment and Accountability Branch.

PUB DATE 2001-00-00

NOTE 45p.; Document Number 95-01/01/06/05. For the 2000 score results guide, see ED 455 268. Appendix may not reproduce well.

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PUB TYPE Guides - Non-Classroom (055)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Academic Standards; Elementary Secondary Education; *Parents; *Scores; State Programs; State Standards; Test Construction; Test Interpretation; *Test Results; Testing Programs

IDENTIFIERS Delaware; *Delaware Student Testing Program

ABSTRACT

This report is intended to help parents understand the Delaware Student Testing Program (DSTP) and the reports it generates. The tests of the DSTP are tied to the Delaware content standards that define the knowledge and skills required for students to succeed beyond high school. In spring 2001, the DSTP reading, writing, and mathematics tests were administered as they are annually, and administration of the Social Studies tests was planned for October 2001. Section 1 of this report introduces the DSTP and the reports stemming from it and answers some common questions about the program. Section 2 focuses on the English Language Arts report, and gives information about norms, score comparisons in reading and writing, an explanation of percentile ranks, and an explanation of performance levels and cut points. Section 3 provides similar information for mathematics, and section 5 contains equivalent information for Science and Social Studies. Section 5 is a detailed discussion of understanding reading and mathematics at all tested grades. Section 6 contains some suggestions to help students improve in school. An appendix contains sample reports. (SLD)

ED 465 816

Delaware Student Testing Program

A SCORE RESULTS GUIDE FOR PARENTS

Prepared by the Assessment and Analysis Group
Assessment and Accountability Branch
Delaware Department of Education
Spring 2001

Available on the Department of Education Website at
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Document No. 95-01/01/06/05

TABLE OF CONTENT

TABLE OF CONTENT	iii
SECTION I: INTRODUCTION TO THE DSTP	1
Purpose of the test	1
Questions and answers about the 2001 DSTP	2
What are “Standards”?.....	2
What kind of information is tested in each part of DSTP?	2
What are scaled scores and what is the advantage of using them?	3
What are the scores and how are they going to be used?	3
Individual Student Scores.....	3
School Scores for the DSTP:.....	3
District Scores for the DSTP:.....	4
Statewide Scores for the DSTP:	4
Reports.....	4
Reports sent to parents.....	4
Reports available to teachers	4
Reports for administrators.....	5
Schools	5
Districts	5
Public Access Reports	5
SECTION II: UNDERSTANDING THE ENGLISH LANGUAGE ARTS REPORT	6
A. Grade, Testing Date, SAT9 Level/Form and SAT9 Norms	7
SAT9 Level/Form and Norms	7
B. Score Comparisons of Grade Tested: Reading	7
The Individual Student’s Score.....	7
The School’s Score.....	8
The District’s Score	8
The State of Delaware’s Score	8
C. Score Comparisons of Grade Tested: Writing	8
The Individual Student’s Score.....	8
The School’s Score.....	9
The District’s Score	9
The State of Delaware’s Score	9
D. A Student’s Percentile Rank for Reading	9
SAT9.....	9
Percentile Rank.....	9
E. Instructional Needs: Reading and Writing	10
Reading.....	10
Writing.....	11
Cluster 1	11

Cluster 2	11
Cluster 3	12
Cluster 4	12
F. Performance Levels: Reading and Writing	12
Cut Point Development	12
Cut Points for Reading:	13
Cut Points for Writing:	13

SECTION III: UNDERSTANDING THE MATHEMATICS REPORT 14

A. Grade, Testing Date, SAT9 Level/Form and SAT9 Norms	14
B. Score Comparisons of Grade Tested: Mathematics	15
The Individual Student’s Score	15
The School’s Score	15
The District’s Score	15
The State of Delaware’s Score	16
C. A Student’s Percentile Rank For Mathematics	16
SAT9	16
Percentile Rank	16
D. Instructional Needs: Mathematics	17
E. Performance Levels: Mathematics	17
Cut Point Development	17
Cut Points for Mathematics	18

SECTION IV: UNDERSTANDING THE SCIENCE AND SOCIAL STUDIES REPORT 19

A. Grade and Testing Date	19
B. Score Comparisons of Grade Tested: Science and Social Studies	20
The Individual Student’s Score	20
The School’s Score	20
The District’s Score	20
The State of Delaware’s Score	20
C. Sub Scores	20
Science	20
Social Studies	21
D. Performance Levels	21

SECTION V: UNDERSTANDING READING AND MATHEMATICS IN GRADES 2, 4, 6, 7, 9, 11, AND 12 22

SAT9 Score Report Information	22
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SECTION VI: SUGGESTIONS ON HOW TO HELP STUDENTS DO BETTER IN SCHOOL 23

Helping the student at home	23
Learning style	23
General help suggestions	23
Homework suggestions	24
Communication with the teacher and school	24

Specific help suggestions..... 24

Parent-Teacher Conferences25

APPENDIX A: SAMPLE REPORTS.....26

Section I: Introduction to the DSTP

Delaware students must meet world-class standards if they are to be competitive and successful in a global economy. To prepare our students for their future, our schools must support rigorous standards and each of our teachers must set high expectations. Our students must also commit themselves to the achievement of excellence.

Any system that hopes to accomplish such ambitious goals must have a yardstick by which to measure its progress. Delaware educators have developed the Delaware Student Testing Program (DSTP) that now serves as such a yardstick. The tests are tied to the Delaware content standards that define the knowledge and skills required for our students to succeed beyond high school. The results of the DSTP provide us with an understanding of how well we are preparing students to meet the many challenges that lie ahead. Whatever the results, Delaware students and educators will understand where we are so that we can tell how far we have to go. An accurate assessment of where we are is the first step towards getting where we want to be.

This past spring, the annual administration of the DSTP reading, writing, and mathematics tests were administered to provide us with an accurate measure of how well our students are doing relative to Delaware's rigorous content standards. The science and social studies tests were also administered in grades 8 and 11. The grades 4 and 6 science and social studies items will be administered in October, 2001.

Purpose of the test

The Delaware Student Testing Program is designed to:

- serve as a measure of progress toward the Delaware content standards;
- ensure that students can apply their academic skills to realistic, everyday problems;
- promote better instruction and curriculum by providing timely reports of students' strengths and weaknesses;
- ensure that students are formally provided with extra instruction when needed;
- serve as a primary indicator in the statewide accountability system and
- help districts determine who should and should not be promoted from grade to grade.

Questions and answers about the 2001 DSTP

What are “Standards”?

The standards are the result of several years of work by Delaware educators to determine what Delaware students should know and be able to do as a result of their education. The standards for English language arts (reading and writing), mathematics, science and social studies were approved by the State Board of Education in 1995. Since then, Delaware’s standards have been widely recognized as among the best in the nation by publications such as *Time*, *Forbes*, and *Education Week*. Each teacher and each administrator in Delaware has a copy of the Standards.

What kind of information is tested in each part of DSTP?

Reading: Reading is assessed using literature that informs, entertains or explains how to perform a task. Students are asked to read passages and then demonstrate their ability to comprehend, analyze and interpret what they have read by answering multiple choice, short answer, and extended response questions.

Because reading is fundamental to success in all areas of education, the reading test is especially important. ***The results of the spring 2001 reading test at grades 3, 5 and 8 will determine whether or not students will be required to have an Individual Improvement Plan (IIP) for the 2001-2002 school year.***

Writing: In this section of the test, writing is assessed in two ways. First, students are asked to provide a written response to a prompt with a specific purpose and audience in mind. Second, students are asked to write a response to a question about a reading passage. This is done to assess students’ ability to recognize that reading and writing are integrally connected.

Mathematics: The mathematics section assesses a student’s ability to grasp key concepts and solve realistic problems. Multiple choice, short answer, and extended response questions are used to assess students’ conceptual knowledge, procedural knowledge, and knowledge of mathematical processes across core areas such as computation, measurement, algebra, and geometry. Because the test is focused on reasoning and analysis, students are permitted to use calculators on some parts of the test. ***The results of the Spring 2001 mathematics test at grade 8 will determine whether or not students will be required to have an Individual Improvement Plan (IIP) for the 2001-2002 school year.***

Science: The science section assesses a student’s ability to grasp key scientific principles and solve realistic problems. Multiple choice questions and short answer questions are used to assess students’ conceptual knowledge, procedural knowledge, and knowledge of scientific principles across core areas such as ecology, diversity of living things, life processes, dynamic systems, space, energy, properties of materials, and the nature and application of science and technology. The test is focused on reasoning and analysis.

Social Studies: The social studies section assesses a student’s ability to grasp key concepts and apply this knowledge to everyday living within a diverse world, and within

a democratic system. Multiple choice questions and short answer questions are used to assess students' conceptual knowledge and analytical abilities across core areas such as civics, economics, geography, and history. The test is focused on reasoning and analysis across core areas.

What are scaled scores and what is the advantage of using them?

The number of correct responses a student gives to test items is called a raw score. The reading and mathematics raw scores are converted to scaled scores by use of the Item Response Theory, Rasch Model process. This is a widely accepted scaling procedure used by testing companies. The primary purpose of converting raw scores to scaled scores is to aid in interpreting students' test results. Scaled scores allow comparison of the scores of a student over time from grade 3 to grade 5 to grade 8 to grade 10. This permits an examination of the student's growth over time. Scaling also permits the examination of other trends in performance of **groups of students** over time.

What are the scores and how are they going to be used?

There are four types of scores that are reported via written reports:

1. Individual student scores;
2. School scores;
3. District scores; and
4. State scores.

There are five types of reports available on the DSTP-OR registered user system (four like those on the written reports plus a special group report). Superintendents, principals, and registered teachers have access to student information.

Note that school, district, and state summary reports (that do not contain individual student scores) can be accessed by the public using the Department of Education website at: www.doe.state.de.us/aab.

Individual Student Scores:

The results are reported to parents and to schools so parents and teachers can review the indicators of the student's academic strengths and weaknesses and can begin to assist students in meeting the content standards.

After the administration of the **DSTP** in the spring of 1999, the results were used to develop decision points for performance levels (see pages 14 through 16 for reading and writing, and pages 21 through 22 for mathematics.)

School Scores for the DSTP:

The results of student performance on the **DSTP** for the entire school can assist school staff in evaluating how the curriculum is functioning: What are the strengths of the curriculum? What are the weaknesses? What overall curriculum changes might be necessary to assist students in meeting the standards? The school scores can provide

a signal to the principal that additional resources may be needed or reallocated to assist teachers in providing the necessary instruction.

District Scores for the DSTP:

The results of district-wide student performance on the **DSTP** allow district staff to identify strengths and weaknesses common to the schools in the district. This information permits the district administrators to examine district-wide curriculum that works, curriculum that needs adjustment, resource allocation, and/or any other adjustment that might be necessary.

Statewide Scores for the DSTP:

The results of the statewide scores permit the public to monitor the collective progress of students toward meeting the Delaware content standards. It is anticipated that the statewide scores on the **DSTP** will increase for students as teachers and school administrators begin to identify strengths and weaknesses and to continue to work for changes to improve the educational process.

Reports

Written DSTP reports are distributed to parents and education administrators.

Reports sent to parents

Parents of students in grades 3, 5, 8, and 10 receive two reports:

1. The 2001 DELAWARE STUDENT TESTING PROGRAM English Language Arts Individual Report, and
2. The 2001 DELAWARE STUDENT TESTING PROGRAM Mathematics Individual Report.

Parents of students in grades 4, 6, 8, or 11 receive a third type of report:

3. The 2001 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies Individual Report. Reports for 8th and 11th grade students will be sent in September of 2001, reports for 4th and 6th grade students will be sent in February 2002.

Parents of students in grades 2, 4, 6, 7, 9, 11, and 12 receive a fourth type of report:

4. The 2001 SAT9 Reading Comprehension (Reading) and Problem Solving (Mathematics) report.

Reports available to teachers

Through on-line reporting teacher have:

1. English language arts scores for each student in the class,
2. Mathematics scores for each student in the class, and/or
3. Science and social studies scores for each student in the class.

Reports for administrators

Schools

Each school receives up to three reports:

1. For students in grades 3, 5, 8, and 10, the 2001 DELAWARE STUDENT TESTING PROGRAM English Language Arts Report for the School,
2. For students in grades 3, 5, 8, and 10, the 2001 DELAWARE STUDENT TESTING PROGRAM Mathematics Report for the School, and
3. For students in grades 4, 6, 8, and 11, the 2001 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies School Report. (Reports for 8th and 11th grade students will be sent in fall of 2001, reports for 4th and 6th grade students will be sent in February 2002.)

Districts

Each district receives district-wide reports for:

1. Students in grades 3, 5, 8, and 10, the 2001 DELAWARE STUDENT TESTING PROGRAM English Language Arts Report for the District,
2. Students in grades 3, 5, 8, and 10, the 2001 DELAWARE STUDENT TESTING PROGRAM Mathematics Report for the District, and
3. Students in grades 4, 6, 8, and 11, the 2001 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies District Report. (Reports for 8th and 11th grade students will be sent in September of 2001, reports for 4th and 6th grade students will be sent in February 2002.)

Public Access Reports

DSTP On-line summary reports are available for public access. These reports can be accessed through the Delaware Department of Education website: www.doe.state.de.us/aab. After connecting with the website, click on the "DSTP Online Report" green tile. The following reports can be accessed:

- overall summary reports,
- disaggregated reports,
- matched-scores reports,
- summary by district, and
- District and school summaries.

DSTP results from the spring 1998, 1999, 2000, and 2001 testing years are also available for reading, writing and mathematics; and the fall and spring 2000 DSTP results are available for science and social studies.

An example of a statewide summary report is found in Appendix A.

SECTION II: Understanding the English Language Arts Report

The score report you received contains six sections of information regarding student performance on reading and writing:

- A. Grade, testing date and SAT9/Level and Form, and the date the SAT9 Norms were developed.
- B. The reading scaled score for your **student** compared to other students at the **same grade level** in the school;
The average reading scaled score for the **school** (for students in the **same grade** as your student);
The average reading scaled score for the **district** (for students in the **same grade** as your student);
The average reading scaled score for the **State of Delaware** (for students in the **same grade** as your student);
- C. The writing score of your **student** compared to other students at the **same grade level** in the school;
The average writing score for the **school** (for students at the **same grade** as your student);
The average writing score for the **district** (for students in the same grade as your student);
The average writing score for the **State of Delaware** (for students in the **same grade** as your student);
- D. Your student's SAT9 percentile rank for reading;
- E. Your student's Instructional Needs for reading and writing; and
- F. Your student's Performance Level and score in reading and in writing.

Each section of the English Language Arts Individual Report is discussed separately.

A. Grade, Testing Date, SAT9 Level/Form and SAT9 Norms

This part of the score report provides general information about the administration of the test:

- The grade level of your student (03, 05, 08, or 10) is reported next to **Grade**.
- The date your student took this test is then listed.

SAT9 Level/Form and Norms

Following the test date is the SAT9 **Level/Form**. The SAT9 is an acronym for the *Stanford Achievement Test-Ninth Edition*. The SAT9 is a standardized, nationally administered test. To create the national norms for the SAT9, it was administered to a representative sample from 225,000 to 250,000 students nationwide. Their score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT9. The norms for this test were developed in 1995.

B. Score Comparisons of Grade Tested: Reading

This section contains score comparisons of your student's reading score against all of the students in the school at the **same grade** who took the test. Your student's score is found on the line between the lowest scale score listed on the left-hand side of the line and the maximum scale score on the right. Remember that your student is being compared with other students in the school at the **same grade** who took the test. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

If you have students at different grade levels, you will see that grade levels have different scale values. For tenth grade students, the scale listed ranges from 250 to 800; for eighth grade students, it ranges from 225 to 775; for fifth grade students, it ranges from 175 to 700; and for third grade students, it ranges from 150 to 675. It is expected that older students will perform at a higher level than younger students.

The Individual Student's Score

In this section you can see how well your student is performing, as compared to all the students in the same grade in the school who took the test, by locating the position of your students' score on the scale relative to the position of the score for all students who took the test at the **same grade** level in the school. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

The School's Score

Also, you can see how all the students in your school are performing on reading compared to all the students in the district who took the test at that grade level by examining the position of the school's score on the scale relative to the district's score. You can also compare the school's score to the performance of all same grade students in the state.

The District's Score

Also, you can see how all the students in your school district are performing on reading compared to all the Delaware students who took the test at the same grade level by examining the position of the district's score on the scale relative to the state's score. Remember that these scores reflect performance of all district students in the **same grade** as your student.

The State of Delaware's Score

In addition, you can see how all the students who took the test in the State of Delaware are performing on reading by examining the position of the state's score on the scale. Remember that these scores reflect the performance of all students in the **same grade** as your student.

C. Score Comparisons of Grade Tested: Writing

This section contains score comparisons of your student's writing score against students who took the test in the school, in the district, and in the State of Delaware. This score is the total points your student received on two writing prompts. The first prompt is based on a reading passage and is called a text-based writing prompt; that is, students must read a passage and then answer a question and write about what they read. They have approximately 30 minutes to do this.

The second prompt stands by itself. Students respond to a few sentences that prompt them to write about a topic or an issue. Students have 2 hours to respond to this prompt. The text-based prompt is scored by one judge, the stand-alone prompt is scored by two judges, and the total writing Score is the combination of all three scores. A maximum of 5 points and a minimum of 1 point can be awarded by each judge, thus the maximum score is 15 (5+5+5) and the minimum score is 3 (1+1+1). The student's writing score is found on the line between the 1 to 15 scale.

The Individual Student's Score

In this section you can see how well your student is performing in writing as compared to all the students in the same grade in the school by locating the position of your student's score on the scale. Remember that your student is being compared with other students at the **same grade level** in the school who took the test. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

The School's Score

Also, you can see how all the students in your school are performing on writing compared to all the students in the district who took the test by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your student. You can also compare the school's score to the performance of all same grade students in the state.

The District's Score

Also, you can see how all the students in your school district are performing on writing compared to all the Delaware students who took the test by examining the position of the district's score on the scale. Remember that these scores reflect the performance of all district students in the **same grade** as your student.

The State of Delaware's Score

In addition, you can see how all the students who took the test in the State of Delaware are performing on writing by examining the position of the state's score on the scale. Remember that these scores reflect the performance of all district students in the **same grade** as your student.

D. A Student's Percentile Rank for Reading

SAT9

The percentile rank for reading is obtained from the abbreviated form of the SAT9 that is embedded in the DSTP. The SAT9 is the timed portion of the DSTP and is included for several reasons:

- It allows comparisons of the reading performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on general reading proficiency to other students across the United States.
- A subset of the SAT9 items are directly related to the Delaware Reading Standards and are a part of the DSTP score.
- The SAT9 items included in the DSTP permit the important and efficient psychometric process of equating and scaling the DSTP from one administration of the test to subsequent administrations of the test.

Percentile Rank

A percentile rank is a way of looking at how well your student performed on the SAT9 reading test relative to all the same grade students in the national norms. Percentile rank gives you the additional information as to what percentage of **same grade** students in the norms scored higher or lower than your student. For example, if your student had a reading percentile rank of 91, it means that 91 percent of the students in the national norms scored **below** your student and only 9 percent scored **at or higher**

than your student. If your student had a reading percentile rank of 54, it means that 54 percent of the students in the national norms scored **below** your student and that 46 percent scored **at or higher** than your student. If your student had a percentile rank of 29, it means that 29 percent of students in the national norms scored **below** your student and that 71 percent scored **at or higher than your student.**

In some cases a student might score higher or lower on the SAT9 reading test than on the DSTP reading test. It must be kept in mind that a student's SAT9 percentile rank score cannot be directly compared to the relative scale position of the DSTP reading test score. There are several reasons why these scores are non-comparable:

- The SAT9 reading test is not directly aligned with Delaware reading content standards. A portion of the SAT9 reading test is related to the reading content standards and is included in the DSTP score, whereas the DSTP reading test is **completely aligned** with the English language arts content standards.
- The SAT9 is entirely comprised of multiple-choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses requires very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT9 and the DSTP reading test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of reading and their results cannot be directly compared.
- The score for the DSTP reading test is based on a substantially larger number of test items than the score for the SAT9 reading test. This means that the DSTP reading test samples a larger portion of the student's reading skills as defined by the English language arts content standards than does the SAT9.

E. Instructional Needs: Reading and Writing

This section of the report provides feedback that depends on what items your student answered correctly and incorrectly, and/or how the items were answered. For that reason, each student's report will likely differ from another student's report.

Reading

In reading, comments are produced depending on the kind of items a student can and cannot answer. For example, if a student answered incorrectly a series of open-ended reading items that needed more details, a comment would be produced suggesting that the student needed to work on "providing enough details from the text to answer open-ended questions." Likewise, if items that measured the student's ability to understand the central ideas in a piece of text are answered incorrectly, a comment would be produced stating that the student needed to work on "interpreting meaning by drawing conclusions about the central ideas in a text."

The instructional needs comments provide the student, the parent, and the teacher with information about the areas in which the child needs to improve performance. It would

be useful to meet with your student's teacher about how you and the teacher might assist your student in improving any reading weaknesses.

Writing

In writing, a cluster of comments is produced (triggered) according to a student's "average" performance score across two writing prompts. Triggering the cluster of comments in this way allows us to create a hierarchy of comments that will help push all students towards the upper end of the state writing rubric (scoring guide), and thus toward the state standards for writing.

It should be noted that the comments on the Instructional Needs in writing:

- reflect the Delaware content standards for writing;
- provide parents with information regarding their student's strengths and weaknesses in writing;
- were developed to help teachers examine the instructional needs of their students;
- occur in "clusters" as opposed to individual comments to better reflect the integrated nature of the writing rubric (scoring guide) and the Delaware writing standards.

The writing standards support four broadly stated clusters of comments that relate to writing. The clusters are hierarchical in nature, that is, Cluster 1 more in-depth instructional needs a student requires for improvement, and Cluster 4 requires less in-depth remediation needs.

Each student who took the test will receive a cluster of comments that match their scores. Following are the comments that can be triggered by your student's written responses. The comments come directly from the state writing rubric (scoring guide) and the state standards. Two comments: "organizing their writing around a simple topic or central idea" and "working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding," are repeated in clusters 1 and 2 to show that developing writers need continued instruction in these areas.

Cluster 1

- organizing the writing around a single topic or central idea.
- writing in complete sentences with a variety of length and structure.
- working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding.
- doing more than restating the prompt.

Cluster 2

- organizing the writing around a simple topic with an introduction, closing, and some transitions.
- working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding.

- supporting ideas with more specific details.
- doing more than making generalities regarding the prompt.

Cluster 3

- using effective introduction and closing.
- writing in a consistent style with precise vivid word choice.
- writing with a clear logical progression of ideas using smooth transitions.
- including relevant details that are fully elaborated.

Cluster 4

- Congratulations on an excellent performance on at least one of the two writing prompts. The comments below are to encourage the student to strive for excellence by:
 - continuing to write using distinctive voice and style,
 - showing an exceptional awareness of readers' needs.

F. Performance Levels: Reading and Writing

Cut Point Development

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% participants from organizations or from the community, met under the guidance of Harcourt Educational Measurement, to develop the “Meets the Standard” and “Exceeds the Standard” cut points. A subset of these participants developed the cut points for reading and writing. The methodology used by judges for setting the cut points is referred to as “Item Mapping” by some measurement companies, and “Bookmarking” by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and inserting “bookmarks” at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges’ recommendations for the “Meets the Standard” and “Exceeds the Standard” performance levels had been finalized, the Department of Education, with the technical assistance of Harcourt Educational Measurement, calculated the cut points for the “Below the Standard” and “Well Below the Standard” levels, and the cut point for the “Distinguished” performance level.

There are five performance levels in reading and writing that are consistent with Delaware's accountability law. The following describe each level:

<u>Performance Level</u>		<u>Described as:</u>
Level 5	Distinguished Performance	Exemplary performance
Level 4	Exceeds the Standard	Very Good
Level 3	Meets the Standard	Good
Level 2	Below the Standard	Needs Improvement
Level 1	Well Below the Standard	Needs Significant Improvement

Cut Points for Reading:

The cut points for the DSTP reading scale score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	386	387	411	465	482
Grade 5	426	427	451	508	529
Grade 8	474	475	500	564	584
Grade 10	476	477	502	573	593

Each scale score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level.

Cut Points for Writing:

The cut points for the DSTP writing raw score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	4	5	7	11	13
Grade 5	5	6	8	11	13
Grade 8	5	6	8	11	13
Grade 10	5	6	8	11	13

Each raw score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level.

SECTION III:

Understanding the Mathematics Report

The Mathematics Individual Report has five sections of information on student performance:

- A. Grade, testing date and SAT9/Level Form/ and year the SAT9 Norms were developed;
- B. The mathematics scaled score for your **student** compared to other students at the same grade level in the school;
The average mathematics scaled score for the **school** (for students in the same grade as your student);
The average mathematics scaled score for the **district** (for students in the same grade as your student);
The average mathematics scaled score for the **State of Delaware** (for students in the same grade as your student);
- C. Your student's SAT9 percentile rank for reading;
- D. Your student's Instructional Needs in mathematics; and
- E. Your student's Level of Performance in mathematics;

Each section of the Mathematics Individual Report is discussed below.

A. Grade, Testing Date, SAT9 Level/Form and SAT9 Norms

Like the English Language Arts Report, this part of the score report provides general information about the administration of the test:

- The grade level (03,05,08, or 10) of the student is reported next to **Grade**.
- The date your student took this test is then listed.
- Following the test date is the SAT9 **Level/Form**. The SAT9 is an acronym for the *Stanford Achievement Test-Ninth Edition*. The SAT9 is a standardized, nationally administered mathematics test. To create the national norms, the SAT9

mathematics test was administered to a representative sample of approximately 250,000 students nationwide, and their mathematics score results are referred to as 'norms.' The norms become a reference point against which to compare any individual student's performance. For the 2001 tests, the year the mathematics norms were developed is 1995.

B. Score Comparisons of Grade Tested: Mathematics

This section contains score comparisons of your student's mathematics score against all students at the **same grade** level in the school who took the test. For mathematics, your student's score is found on the line between the lowest scale score and the maximum scale score. Remember that your student is being compared with other students in the school at the same grade who took the test. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

If you have students at different grade levels, you will see that different grade levels have different scale values. This difference is related to the highest and lowest score the students would normally be expected to achieve at each different grade level. For tenth grade students, the scale listed ranges from 300 to 800; for eighth grade students, the scale ranges from 250 to 750; for fifth grade students, it ranges from 175 to 700; and for third grade students, it ranges from 150 to 650. It is expected that older students will perform at a higher level than younger students.

The Individual Student's Score

In this section you can see how well your student is performing as compared to all the students at the **same grade** level in your student's school who took the test by locating the position of your student's score on the scale. Remember that your student is being compared with other students at the **same grade** level in this school who took the test. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

The School's Score

Also, you can see how all the students in your school are performing in mathematics compared to all the **same grade** students in the district or the state who took the test by examining the position of the school's score on the scale.

The District's Score

Also, you can see how all the students in your school district are performing in mathematics compared to all the Delaware students who took the test at the same grade level by examining the position of the district's score on the scale relative to the state's score.

The State of Delaware's Score

In addition, you can see how all the students who took the test in the State of Delaware are performing in mathematics by examining the position of the state's score on the scale. Remember that these scores reflect performance of all students at the **same grade** level as your student.

C. A Student's Percentile Rank For Mathematics

SAT9

The percentile rank for mathematics is obtained from the abbreviated form of the SAT9 that is embedded in the DSTP. The SAT9 is the timed portion of the DSTP and is included for several reasons:

- It allows comparisons of the mathematics performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on general mathematics proficiency to other students in the nation.
- A subset of the SAT9 items is directly related to the Delaware Mathematics Standards and is part of the DSTP score.
- The embedded SAT9 items permit the important and efficient psychometric process of equating and scaling the DSTP test from one administration of the test to subsequent administrations of the test.

Percentile Rank

A percentile rank is a way of looking at how well your student performed on the SAT9 mathematics test relative to all the same grade students in the national norms. Percentile rank gives you the additional information as to what percentage of **same grade** students in the national norms scored higher or lower than your student. For example, if your student had a mathematics percentile score of 98, it means that 98 percent of the students in the national norms scored **below** your student and only 2 percent scored **at or higher than your student**. If your student had a Mathematics percentile of 45, it means that 45 percent of the students in the norms scored **below** your student and 55 percent scored **at or higher than your student**. If your student had a percentile score of 20, it means that 20 percent of students in the norms scored **below** your student and that 80 percent scored **at or higher than your student**.

In some cases a student might score higher or lower on the SAT9 mathematics test than on the DSTP mathematics test. It must be kept in mind that a student's SAT9 percentile rank score cannot be directly compared to the relative scale position of the DSTP mathematics test score. There are several reasons why these scores are non-comparable:

- The SAT9 mathematics test is not directly aligned with Delaware mathematics content standards. A portion of the SAT9 mathematics test is related to the mathematics content standards and is included in the DSTP score, whereas the

DSTP mathematics test is **completely aligned** with the mathematics content standards.

- The SAT9 is entirely comprised of multiple-choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses require very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT9 and the DSTP mathematics test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of mathematics and their results cannot be directly compared.
- The score for the DSTP mathematics test is based on a substantially larger number of test items than the score for the SAT9 mathematics test. This means that the DSTP mathematics test samples a larger portion of the student's mathematical skills as defined by the Mathematics content standards than does the SAT9.

D. Instructional Needs: Mathematics

This section of the report provides feedback that depends on what items your student answered correctly and incorrectly, and/or how the items were answered. Each student's report will likely differ from another student's report. For example, if the student answered incorrectly a series of mathematics items concerning measuring, a comment would be produced that reads: "In order to improve in **Number Concepts**, your child might benefit from additional practice in measuring." The classroom teacher can give you concrete suggestions on how you might help your student improve performance for each instructional needs comment that might be produced.

E. Performance Levels: Mathematics

Cut Point Development

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% organization or community members, met under the guidance of Harcourt Brace Educational Measurement, to develop the "Meets the Standard" and "Exceeds the Standard" cut points. A subset of these participants developed the cut points for mathematics. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and inserting "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations for the "Meets the Standard" and "Exceeds the Standard" performance level had been finalized, the Department of Education, with the technical assistance of Harcourt Educational Measurement, calculated the cut points for the

“Below the Standard” and “Well Below the Standard” levels, and the cut point for the “Distinguished” performance level.

The five performance levels in Mathematics are consistent with Delaware’s accountability law. The following describe each level:

<u>Performance Level</u>		<u>Described as:</u>
Level 5	Distinguished Performance	Exemplary performance
Level 4	Exceeds the Standard Performance	Very Good
Level 3	Meets the Standard Performance	Good
Level 2	Below the Standard Performance	Needs Improvement
Level 1	Well Below the Standard Performance	Needs Significant Improvement

Cut Points for Mathematics

The cut points for the DSTP Mathematics scale score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	381	382	407	464	499
Grade 5	423	424	449	503	525
Grade 8	468	469	493	531	549
Grade 10	499	500	525	559	574

Each scale score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level.

SECTION IV:

Understanding the Science and Social Studies Report

The Science and Social Studies Individual Report has three sections of information on student performance:

- A. Grade and testing date.
- B. The Science and Social Studies scaled scores for your **student** compared to other students at the **same grade level** in the school;
The average Science and Social Studies scaled scores for the **school** (for students in the **same grade** as your student);
The average Science and Social Studies scaled scores for the **district** (for students in the **same grade** as your student);
The average Science and Social Studies scaled scores for the **State of Delaware** (for students in the **same grade** as your student);
- C. Your student's points earned compared with the average points earned by other students in the school, district and state for each area within the science test: Inquiry, Physical science, Earth science, and Life science. Your student's points earned and percent of points earned for each area within social studies: Civics, Economics, Geography, and History.
- D. Your Students Levels on Performance in Science and Social Studies;

Each section of the Science and Social Studies Individual Report is discussed below.

A. Grade and Testing Date

Like the English Language Arts and Mathematics Report, this part of the score report provides general information about the administration of the test:

- The grade level (4, 6, 8, or 11) of the student is reported next to **Grade**.
- The date your student took this test is then listed.

Unlike the reading and mathematics score report, there are no national standardized tests in science and social studies that match the Delaware Content Standards, thus no national norms are available.

B. Score Comparisons of Grade Tested: Science and Social Studies

This section contains score comparisons of your student's science and social studies scores against all students who took the tests at the **same grade** level in your student's school. You can compare your student's performance to the performance of all same grade students in the school, district and in the state. The scale on the right is the social studies score and is structured similarly.

The Individual Student's Score

In this section you can see how well your student is performing in science and social studies by locating the position of your student's score on the scale. Remember that your student is being compared with other students at the **same grade** level in this school year who took the test. You can also compare your student's performance to the performance of all same grade students in the district and in the state.

The School's Score

Also, you can see how all the students in your school are performing in science and in social studies compared to all the **same grade** students in the district or state by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your student.

The District's Score

Also, you can see how all the students at your student's same grade level in your school district are performing in science and in social studies compared to all the same grade level Delaware students who took the test by examining the position of the district's score on the scale.

The State of Delaware's Score

In addition, you can see how all the students who took the science and social studies tests in the State of Delaware are performing by examining the position of the state's score on the scale. Remember that these scores reflect performance of all students at the **same grade** level as your student.

C. Sub Scores

Science

This section provides feedback that reflects the number of items your student answered correctly in each of the following areas of science: inquiry, physical science, earth science, and life science. Listed in the left hand column is the number of points out of a total, your student scored in each area. The corresponding columns give the average number of points scored by other students in the school, district, and state. The classroom teacher can give you concrete suggestions on how you might help your student improve performance in any area in which your student may have a low score.

Social Studies

This section of the report provides feedback that depends on the number of items your student answered correctly in each of the following areas of social studies: civics, economics, geography, and history. Listed in the left hand column is the number of points out of a total, your student scored in each area. The corresponding columns give the average number of points scored by other students in the school, district, and state. The classroom teacher can give you concrete suggestions on how you might help your student improve performance in any area in which your student may have a low score.

D. Performance Levels

During the Summer of 2001 performance levels were established for grades 8 and 11 Science and Social Studies. The same process used for determining the performance levels in Mathematics and Reading was implemented. These Performance Levels are presented in your Parents' Interpretive Folder that accompanies your student's test results.

Section V: Understanding Reading and Mathematics in grades 2, 4, 6, 7, 9, 11, and 12

The spring of 2001 was the first time the **DSTP** was administered at these grade levels. The first-time administration included items being field tested and the abbreviated SAT9 for reading (Reading Comprehension) and for mathematics (Problem Solving). Field Test Items are not used to generate any student level data, therefore for the Spring 2001 DSTP in these grades there is only a percentile score for your student.

SAT9 Score Report Information

The SAT9 is an acronym for the *Stanford Achievement Test-Ninth Edition*. The Abbreviated SAT9 is a short version of the SAT9, and is a standardized, nationally administered test. To create the national norms for the SAT9 and the Abbreviated SAT9, they were administered to a representative sample of 225,000 to 250,000 students nationwide. Their score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT9 or the Abbreviated SAT9. The norms for this test were developed in 1995.

If you have questions about the SAT9 scores, please refer to the SAT9 section in the Appendix or contact your child's school.

Section VI: Suggestions on How to Help Students Do Better In School

Numerous research studies show that:

- When parents are involved, students achieve more, produce higher test scores, have better attendance records and complete homework more consistently.
- The greater the parental involvement, the greater the student achievement.
- When parents are involved, students exhibit more positive attitudes and behavior in school.
- Students whose parents are involved have higher graduation rates and higher post-secondary education enrollment rates.

In this section, several ways will be presented on how you can help a student do better in school. Many of the suggestions are taken from a newly published guide from the Delaware PTA titled: *PTA Parent/Family Resource Guide*. This document can be found in your local school, local library, community center, or the Delaware PTA web site: www.delawarepta.org. Copies can be made for your own use.

Helping the student at home

Learning style

Get to know your student's learning style. People learn in different ways. For example, one student may learn best by watching closely before attempting a task. Another student may feel she needs to touch everything before she understands it. Yet another may ask for constant explanations, such as "What's that thing do?" Learning one way is not better than learning another way. If you are not sure of your student's learning style, ask the teacher. Recognize and reinforce the preferred learning style and make learning more natural for your student.

General help suggestions

There are many things you as a parent can do to ensure a student's success in school. For example:

- Send the student to school every day, well rested and fed, with a positive comment about him/her.
- Tell the student how proud you are of their accomplishments, even small ones, and do this often.
- Take an active interest in the student's schooling, and indicate how much you care about learning.
- Show pride in work that is shared with you by your student. For younger students, display it in special places in your home.
- Use a wall, the refrigerator door, or a bulletin board to display schoolwork.
- Work together on daily household tasks to help make the connection between things learned in school and their application in daily life;
- Provide a variety of interesting reading materials in your home. These can include age-appropriate books, magazines, the local newspaper, and books on computer disks.

Homework suggestions

- Find out if your school has a homework policy. If it does, make sure that you understand the policy and your student's responsibilities connected to it. Expect homework every night, especially in the upper grades.
- Provide an area in your home where school materials can be kept secure. If possible, provide an area for doing schoolwork that has a minimum of interruptions.
- Establish regular blocks of time when you expect schoolwork to be done.
- Follow-up with, and monitor homework. Be consistent in your expectations.
- As appropriate and as much as possible, work together on school-related projects.

Communication with the teacher and school

- Communicate with the teacher and other school personnel regularly. For example, call, write notes, or if possible, stop in at school on the way to work or on a lunch break.
- Never miss a parent-teacher conference. Use the opportunity to share relevant information with a teacher.
- Ask the teacher for ways you can work at home to reinforce what the teacher has taught in class.

Specific help suggestions

There are many specific things you as a parent can do to ensure student success in school. Below are several suggestions.

- Turn off the television for a set period each day. Together agree on the time and stick to the schedule set. During this time encourage creative activities, reading or homework activities.
- Together visit the local library and obtain a library card. Encourage reading for fun.
- When tests and reports come home, take the emphasis off the grades and focus instead on the information and skills learned. Ask simple questions to provide the student an opportunity to show what has been learned. Increase the student's knowledge by sharing anything you know about the topic, or by looking it up in an encyclopedia.
- Ask younger children to read portions of a textbook to you while you fix dinner, sort laundry, or drive the car. When they finish the section, discuss any questions the book presents in order to expand their comprehension of the ideas in the text.
- When you ask "What happened in school today?" and get the answer, "Nothin' much," it is time to start a sentence that each person in the family must complete in turn. For example, "The most surprising thing I learned today was..." Everyone in the family takes a turn sharing their experiences.

Parent-Teacher Conferences

A parent-teacher conference is a conversation between a parent and the student's teacher. There is no need for tension, butterflies, and/or frustration. Although a certain amount of nervousness is natural, it may help to remember that teachers can be nervous when talking with parents too. Keep in mind that many teachers are parents, and have experienced your feelings.

If parents and teachers already know each other from previous contacts, the conference becomes much easier and goes much more smoothly. Therefore, it is a good idea to create a relationship with the teacher as early as possible. This shows teachers you care about the educational process. A simple phone call to the teacher introducing yourself and explaining that you would like the teacher to contact you regarding any issues or concerns she/he may develop during the school year is a good start. Remember that teachers can't leave class to take your call, so you will need to inquire about a good time to contact them.

Appendix A: Sample Reports

Following are **samples** of the various reports from the 2001 administration of the DSTP (Note that these sample reports are **NOT REAL reports**, they are mockups produced by Harcourt Educational Measurement). The reports included are:

1. English Language Arts Individual Report (reading and writing)
2. Mathematics Individual Report
3. Science and Social Studies Individual Report
4. Grade 2, 4, 6, 7, 9, 11, and 12 SAT9 Reading Comprehension and Problem Solving Report and score definitions
5. DSTP On-line Reports

A1. English Language Arts Individual Report (Reading and Writing)

2001 DELAWARE STUDENT TESTING PROGRAM English Language Arts Individual Report for

Student ID#:

GRADE: 05
TEST DATE: 07/15/01
SATY LEVEL/FORM: 12/T
SATY NORMS: 1995 FD 14

SCORE COMPARISONS OF GRADE TESTED



Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.

50

SCHOOL:
DISTRICT:

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Reading and Writing performance of this student falls into one of the five levels.

Performance Levels are: Reading Level Writing Level and score

Exceeds the standard

Meets the standard

Below the standard

Well below the standard

6.00

INSTRUCTIONAL NEEDS

To achieve a higher level in READING, your child should work on:

- providing enough details from the text to answer comprehension questions
- interpreting meaning by relating more carefully to what is said in the text
- interpreting meaning by using context clues to understand the text
- interpreting meaning by using context clues to understand the text
- interpreting meaning by using context clues to understand the text
- interpreting meaning by using context clues to understand the text
- interpreting meaning by using context clues to understand the text
- interpreting meaning by using context clues to understand the text

To achieve a higher level in WRITING, your child should continue to work on:

- organizing the writing around a single topic or central idea
- writing in complete sentences with a variety of length and structure
- working to avoid errors in conventions of English usage, including spelling and punctuation that interfere with communicating
- writing more than stating the facts

COPY 01

Please see your child's teacher for more information.
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Process No: 1010228-131011-2001-13031



A2. Mathematics Individual Report

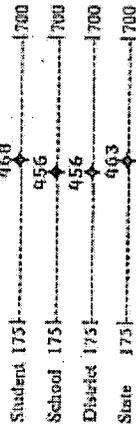
2001 DELAWARE STUDENT TESTING PROGRAM Mathematics Individual Report for

Student ID#:

GRADE: 05
TEST DATE: 03/15/01
SATV LEVEL/FORM: 12/T
SATV NORMS: 1995 PD 14

SCORE COMPARISONS OF GRADE TESTED

Mathematics



Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.



SCHOOL:
DISTRICT:

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Mathematics performance of this student falls into one of the five levels.

Performance Levels are:
Distinguished
Exceeds the standard
Meets the standard
Below the standard
Well Below the standard

Mathematics Level and score

468

INSTRUCTIONAL NEEDS

To achieve a higher level in MATHEMATICS, your child should work on:

Number Concepts

- performing long, short, and other division
- using computation or estimation involving large numbers
- using estimation skills to approximate an ability of

Geometry

- recognizing and naming geometric figures
- applying properties of simple geometric figures

Reasoning and Communication

- using mathematical reasoning to solve multistep problems

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2001 DELAWARE STUDENT TESTING PROGRAM
Science & Social Studies Individual Report for

JOHN DOE
 Student ID#: 000000

SCHOOL: SPRINGFIELD MIDDLE -000
 DISTRICT: SPRINGFIELD -00

GRADE: 08
 TEST DATE: 05/01/01

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Science and Social Studies performance of this student falls into one of the five levels.

Performance Levels are: **Science level and score** **Social Studies level and score**

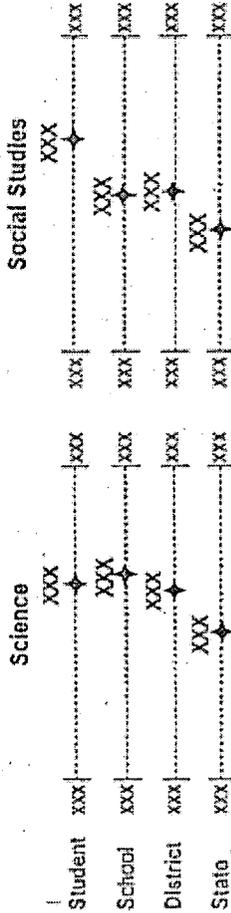
Exceeds the standard

Meets the standard ✓ XXX ✓ XXX

Below the standard

Well Below the standard

SCORE COMPARISONS OF GRADE TESTED



CONTENT AREAS

SCIENCE:	Total Points Possible	Student Points Earned	Average Points Earned	
			School	District
Inquiry	12	XX	XX	XX
Physical Science	17	XX	XX	XX
Earth Science	17	XX	XX	XX
Life Science	22	XX	XX	XX

SOCIAL STUDIES:	Total Points Possible	Student Points Earned	Average Points Earned	
			School	District
Civics	17	XX	XX	XX
Economics	17	XX	XX	XX
Geography	17	XX	XX	XX
History	17	XX	XX	XX

SCORE DEFINITIONS

RAW SCORE: A raw score is the number of questions answered correctly for a subtest or total.

USES: Raw scores are used to convert to the various derived scores.

SCALED SCORE: Scaled scores represent approximately equal units on a continuous scale, using numbers that range from 1 through 999. Scaled scores facilitate conversions to other score types and are suitable for studying change in performance over time. While scaled scores are equivalent across levels of the same subtest and domain total, they are not equivalent from one subtest to another.

USES: Scaled scores have the advantage of representing approximately equal units on a continuous scale. Thus, a difference of 5 points between two students' scores represents the same amount of difference in performance wherever it occurs on the scale. Once a raw score has been converted to its scaled score, it is not necessary to be concerned with the level of the test that was taken when the percentile rank, stanine, or grade equivalent for that score is obtained. This makes scaled scores especially suitable for comparing scores when different levels of the test have been administered and for studying change in performance over time.

NATIONAL PERCENTILE RANK: National percentile ranks indicate the relative standing of a student in comparison with other students in the same grade in the norm (reference) group who took the test at a comparable time. Percentile ranks range from a low of 1 to a high of 99, with .50 denoting average performance for the grade. The percentile rank corresponding to a given score indicates the percentage of students in the same grade obtaining scores equal to or less than that score.

USES: Percentile ranks are useful for comparing a student's performance on a particular subtest relative to the performance of other students. Percentile ranks are also useful for comparing a student's performance across content areas in a score profile.

NATIONAL STANINE: Stanines are scores that range from a low of 1 to high of 9, with 5 designating average performance. National stanines, like national percentile ranks, indicate a student's relative standing in the national norm group. However, since stanines represent approximately equal units of ability, they are particularly useful for comparing a student's scores across subtests in a stanine profile.

USES: Because of their equal-interval property (where the difference between stanines 2 and 4 represents about the same difference in ability as

the difference between stanines 5 and 7), stanines make it easy to identify broad performance categories. Stanine scores of 1, 2, and 3 are usually considered to reflect below-average performance; stanines 4, 5, and 6 are generally thought of as average; and stanines 7, 8, and 9 are above average.

GRADE EQUIVALENTS: A grade equivalent is a score that represents the average performance of students tested in a given month of the school year. The grade equivalent scale ranges from K.0 (beginning Kindergarten) to 12.9 with scores above 12.9 designated PHS (post high school). The numeral to the left of the decimal point refers to the grade for which the score is typical, and the numeral to the right of the decimal point represents one tenth of the school year, or one school month.

USES: Grade equivalents are used most effectively in comparing students' performance with a national sample across grades, levels, and forms of a test. They can best be used to interpret the performance of groups of students.

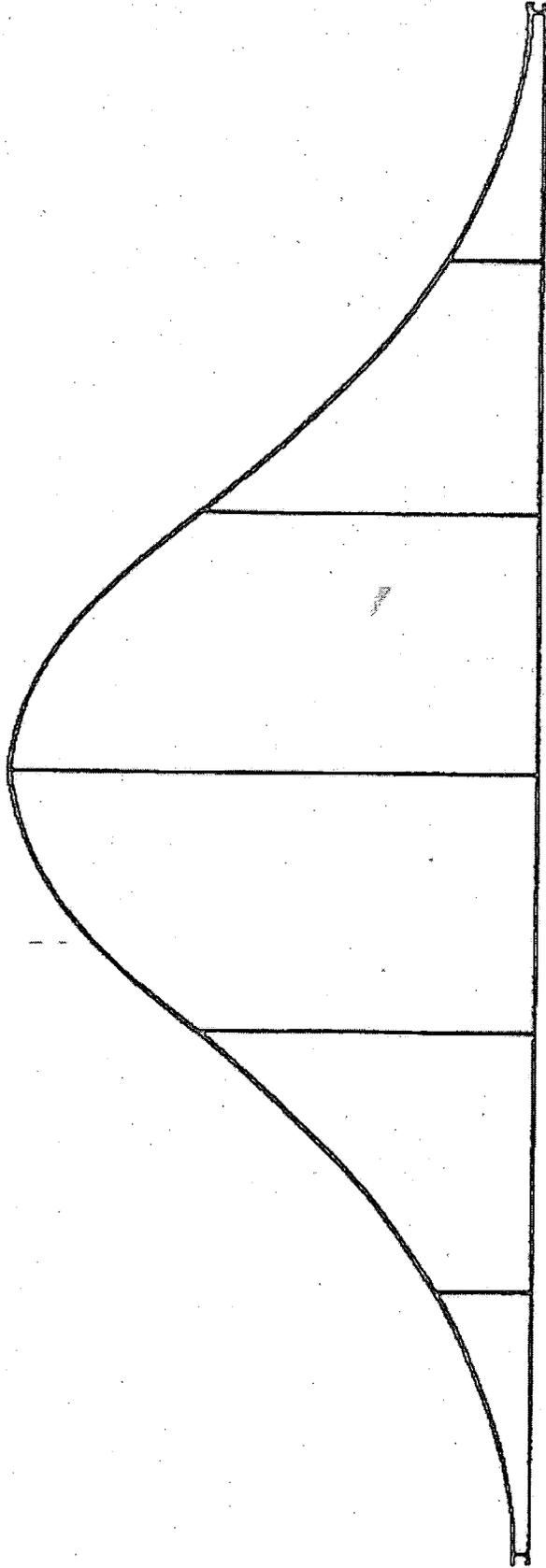
NORMAL CURVE EQUIVALENTS: The Normal Curve equivalent (NCE) is a standard score with a known mean and standard deviation, such that NCE scores of 1, 50 and 99 correspond to percentile ranks of 1, 50, and 99 respectively.

USES: Normal Curve Equivalents were developed as a way of reporting achievement in the evaluation of funded programs. Researchers who developed this score were looking for a score that combined the advantages of the other score types and had none of the disadvantages; i.e., a score that was norm-referenced (like percentile rank), could be used in computations (as with scaled scores and stanines), comprised smaller units than stanines, and was more interpretable than scaled scores.

ACHIEVEMENT/ABILITY COMPARISON: An Achievement/Ability Comparison (AAC) is available when an achievement test and an ability test are administered concurrently. The AAC describes a student's performance on each subtest and total score of the achievement test in comparison to other students earning the same grade stanine on the ability test. An AAC range of "High" (H) indicates the top 23% of the comparison group; "Low" (L), the lowest 23%; and "Middle" (M), the middle 54%.

USES: The AAC score allows a teacher to identify a skill area in need of additional attention. If, for example, a student has an AAC of "Low" for a given subtest, this indicates the achievement score for that subtest is low in comparison to that of other students of the same measured ability.

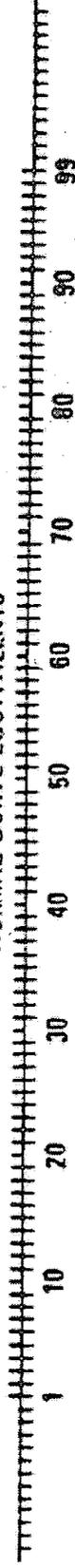
NORMAL CURVE



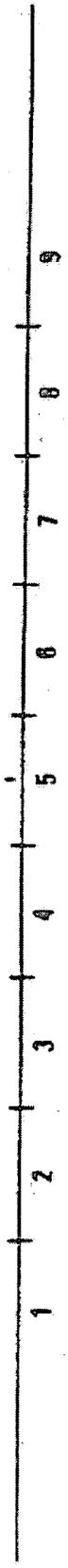
PERCENTILES



NORMAL CURVE EQUIVALENTS



STANINES





Delaware Department of Education Delaware Student Testing Program Welcome!

Welcome to the Delaware Student Testing Program (DSTP) home page! DSTP is Delaware's initiative to measure how well our students are prepared relative to the Delaware Content Standards in English language arts, mathematics, science, and social studies. DSTP is the responsibility of the Assessment and Analysis Group at the Delaware Department of Education.

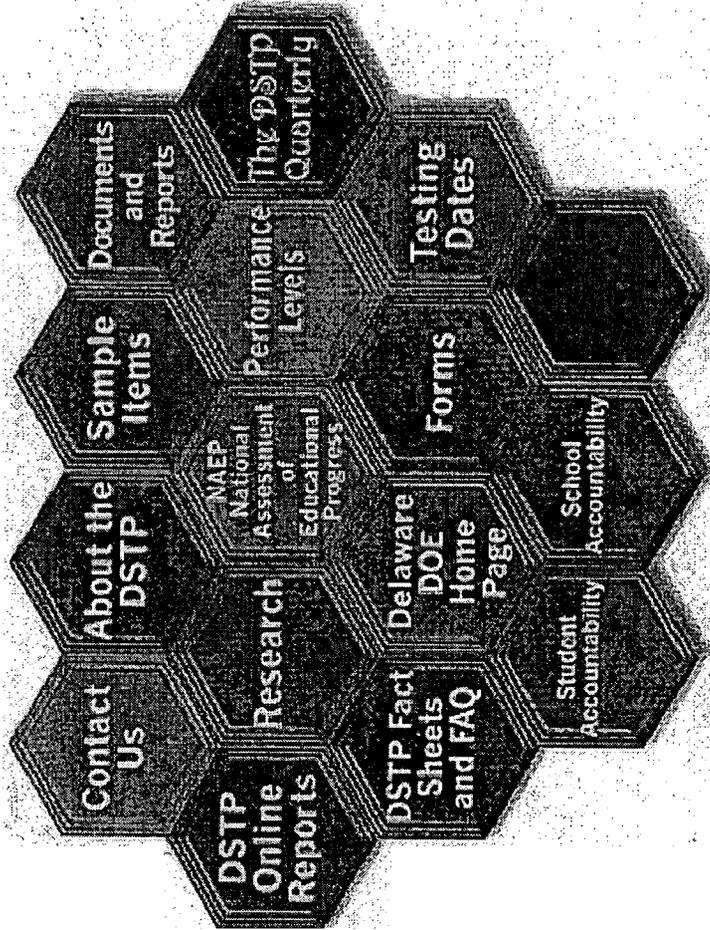
NEW TO THIS SITE

- [Examining the Effects of Drafting and Revising Patterns on Student's Writing Performance and the Implications in Writing Instruction](#)
- [Establishing Targets and School Performance Ratings: Report and Recommendations to the Delaware State Board of Education](#)
- [DSTP Technical Report 1998-2000](#)
- [An Analysis of Achievement Gap between Black and White Students on a Statewide Assessment](#)

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EFF-089 (3/2000)